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(FILE 'HOME' ENTERED AT 18:06:56 ON 07 AUG 2001)  
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 18:07:06 ON 07 AUG 2001

L1 710 S AZADIRACHTIN?  
L2 116 S AZADIRACHTIN? A  
L3 17 S AZADIRACHTIN? B  
L4 911 S SORBITAN (L) TRIOLEATE  
L5 283 S L4 (L) (PEG OR POLYOXYETHYLENE OR POLYETHYLENEOXIDE OR POLYOX  
L6 77 S L4 (L) (POLYETHYLENEGLYCOL OR POLYETHYLENE GLYCOL OR POLY ETH

FILE 'REGISTRY' ENTERED AT 18:09:58 ON 07 AUG 2001

L7 2 S 11141-17-6 OR 95507-03-2  
E AZADIRACHTIN/CN  
L8 12 S E3,E4,E6-E16  
L9 12 S L7,L8  
L10 70 S (16458.1.3 AND 36597.1.3)/RID  
L11 64 S L10 NOT L9  
SEL RN L7  
L12 16 S E1-E2/CRN  
L13 18 S L7,L12  
L14 58 S L9,L11 NOT L13  
L15 1 S 9005-70-3

FILE 'HCAPLUS' ENTERED AT 18:13:51 ON 07 AUG 2001

L16 680 S L15  
L17 448 S TWEEN 85 OR EMSORB OR POLYSORBATE 85  
L18 1007 S L5,L6,L16,L17  
L19 753 S L1-L3,L13  
L20 80 S L14  
L21 1 S L18 AND L19,L20  
E VEGETABLE OIL/CT  
E E10+ALL  
L22 1508 S E1  
L23 3436 S E2  
L24 19368 S VEGETABLE (L) OIL  
L25 3610 S SESAME (L) OIL  
L26 583 S SESAME (L) OIL (L) SEED  
L27 7 S L19,L20 AND L22-L26  
L28 0 S L27 AND (SURFACTANT OR SURFACE ACTIVE)  
L29 1 S L27 AND EPOXIDE  
L30 8 S L21,L27,L29  
E DAMARLA S/AU  
L31 1 S E4  
E SRIDHAR S/AU  
L32 203 S E3,E4,E11,E12  
E RAMAN K/AU  
L33 204 S E3-E16  
E GOPINATHAN M/AU  
L34 6 S E3,E5,E8  
E MAMBULLY /AU  
E CHANDRASEKARAN/AU  
L35 6 S E26,E29  
L36 98 S E49  
E KRISHNASAMI/AU  
E SRINIVASA/AU  
L37 6 S E3  
L38 7 S E56  
E SREENIVASA/AU  
L39 4 S E21  
E RAO/AU  
L40 1 S E3  
E RAO D/AU  
L41 48 S E3

Point of Contact:  
Jan Dslavcl  
Librarian-Physical Sciences  
CM1 1E01 Tel: 308-4498

L42 53 S E114  
L43 2 S E132  
L44 13 S E134  
E RAO DAMARLA/AU  
E RAO S/AU  
L45 102 S E3  
L46 3 S E30  
E RAO SREEN/AU  
L47 7 S E4-E7  
L48 1 S L19,L20 AND L31-L47  
L49 1 S ?AZADIRACH? AND L31-L47  
L50 9 S L48,L49,L30

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 18:25:43 ON 07 AUG 2001  
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FILE COVERS 1947 - 7 Aug 2001 VOL 135 ISS 7  
FILE LAST UPDATED: 6 Aug 2001 (20010806/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> d 150 all hitstr tot

L50 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2001 ACS  
AN 2001:525899 HCAPLUS  
TI Nonaqueous compositions for administration of pharmaceuticals or agrochemicals or biocides  
IN Campbell, William R.; Omilinsky, Barry A.  
PA Blue Ridge Pharmaceuticals, Inc., USA  
SO PCT Int. Appl., 25 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM A61K009-00  
CC 63-6 (Pharmaceuticals)  
Section cross-reference(s): 5, 18  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001051028	A2	20010719	WO 2001-US100876	20010112
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 2000-483084 A 20000114

AB The present invention provides non-aq. compns. which comprise a pharmacol. or biol. active compd., an emulsifier, a polyol, and benzyl alc. The compns. are useful for administering the pharmacol. or biol. active compds. which they contain to animals, plants, or ground surfaces. In preferred embodiments, the pharmacol. or biol. active compds. may be water-insol. or water-labile. The compns. of the present invention allow these compds. to be solubilized and conveniently transported to a site of application in a non-aq. form, and then dild. in an aq. soln. In a particularly preferred embodiment, the compd. is ivermectin and is administered in the drinking water of poultry. The compns. of the present invention may also contain multiple pharmacol. or biol. active compds. which are administrated simultaneously. The present invention also provides methods of administering the compds. In the most preferred embodiment, the compds. may be administered in the drinking water of animals to be treated with the pharmacol. or biol. active compd. In other embodiments, the compns. may be topically applied to the animals or plants to be treated, or sprayed onto plants, animals, or a ground surface to be treated with the active compds. A nonaq. formulation of ivermectin was prepd. and dild. into the drinking water of male turkeys. The formulation was effective in completely eliminating any visible signs of roundworm infestation.

ST nonaq compn pharmaceutical biocide

IT INDEXING IN PROGRESS

IT Essential oils

RL: AGR (Agricultural use); MOA (Modifier or additive use); THU  
(Therapeutic use); BIOL (Biological study); USES (Uses)  
(anise; nonaq. compns. for administration of pharmaceuticals or  
agrochems. or biocides)

IT Essential oils

RL: AGR (Agricultural use); MOA (Modifier or additive use); THU  
(Therapeutic use); BIOL (Biological study); USES (Uses)  
(cedarwood; nonaq. compns. for administration of pharmaceuticals or  
agrochems. or biocides)

IT Essential oils

RL: AGR (Agricultural use); MOA (Modifier or additive use); THU  
(Therapeutic use); BIOL (Biological study); USES (Uses)  
(citronella; nonaq. compns. for administration of pharmaceuticals or  
agrochems. or biocides)

IT Essential oils

RL: AGR (Agricultural use); MOA (Modifier or additive use); THU  
(Therapeutic use); BIOL (Biological study); USES (Uses)  
(eucalyptus; nonaq. compns. for administration of pharmaceuticals or  
agrochems. or biocides)

IT Fats and Glyceridic oils

RL: AGR (Agricultural use); MOA (Modifier or additive use); THU  
(Therapeutic use); BIOL (Biological study); USES (Uses)  
(margosa; nonaq. compns. for administration of pharmaceuticals or  
agrochems. or biocides)

IT Agrochemicals

Emulsifying agents

Parasitocides

Pesticides

(nonaq. compns. for administration of pharmaceuticals or agrochems. or  
biocides)

IT Canola oil

Castor oil

Jojoba oil

Polysiloxanes

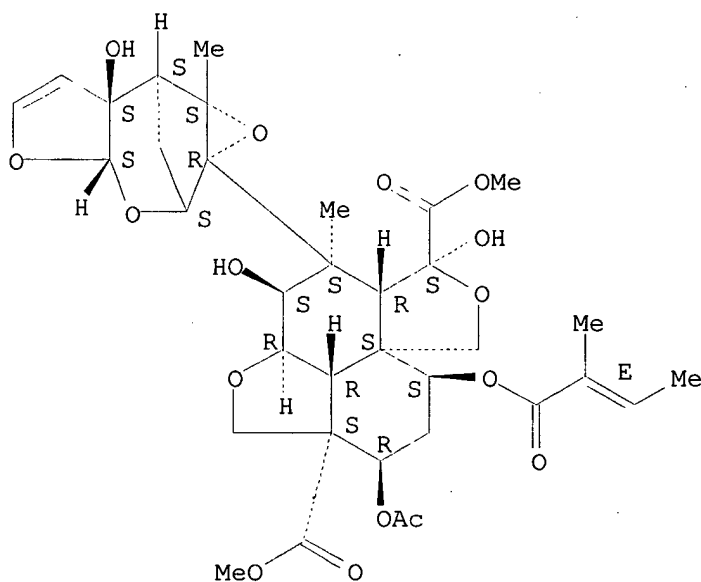
RL: AGR (Agricultural use); MOA (Modifier or additive use); THU  
(Therapeutic use); BIOL (Biological study); USES (Uses)

(nonaq. compns. for administration of pharmaceuticals or agrochems. or  
biocides)

- IT Essential oils  
 RL: AGR (Agricultural use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (orange, sweet; nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)
- IT Alcohols  
 RL: AGR (Agricultural use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (polyhydric; nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)
- IT Drug delivery systems  
 (solns.; nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)
- IT 60-51-5, Dimethoate 61-82-5, Amitrole 63-25-2, Carbaryl 65-85-0D, Benzoic acid, derivs. 72-43-5, Methoxychlor 77-06-5, Gibberellic acid 78-70-6, Linalool 84-65-1, Anthraquinone 85-00-7, Diquat 93-65-2, Mecoprop 97-53-0, Eugenol 104-55-2, Cinnamaldehyde 106-24-1, Geraniol 115-29-7, Endosulfan 115-32-2, Dicofol 120-72-9, Indole 121-75-5, Malathion 122-34-9, Simazine 122-59-8D, Phenoxyacetic acid, derivs. 133-06-2, Captan 134-20-3, Methyl anthranilate 148-79-8, Thiabendazole 301-12-2, Oxydemeton methyl 314-40-9, Bromacil 330-54-1, Diuron 330-55-2, Linuron 333-41-5, Diazinon 404-86-4, Capsaicin 709-98-8, Propanil 732-11-6, Phosmet 834-12-8, Ametryn 950-37-8, Methidathion 1071-83-6, Glyphosate 1194-65-6, Dichlobenil 1563-66-2, Carbofuran 1582-09-8, Trifluralin 1610-18-0, Prometon 1689-84-5, Bromoxynil 1897-45-6, Chlorothalonil 1912-24-9, Atrazine 1918-02-1, Picloram 2593-15-9, Etridiazole 2921-88-2, Chlorpyrifos 4685-14-7, Paraquat 5234-68-4, Carboxin 5902-51-2, Terbacil 8018-01-7, Mancozeb 10004-44-1, Hymexazol 11141-17-6, **Azadirachtin** 13356-08-6, Fenbutatin oxide 13684-56-5, Desmedipham 13684-63-4, Phenmedipham 17804-35-2, Benomyl 19044-88-3, Oryzalin 20354-26-1, Methazole 21087-64-9, Metribuzin 21725-46-2, Cyanazine 22781-23-3, Bendiocarb 23103-98-2, Pirimicarb 23135-22-0, Oxamyl 23422-53-9, Formetanate hydrochloride 23564-05-8, Thiophanate methyl 25057-89-0, Bentazon 29091-21-2, Prodiamine 30560-19-1, Acephate 34014-18-1, Tebuthiuron 35367-38-5, Diflubenzuron 35554-44-0, Imazalil 37324-45-1, Dihydroazadirachtin 38669-41-9D, Phenoxypropionic acid, derivs. 38669-42-0D, derivs. 40487-42-1, Pendimethalin 42509-80-8, Isazofos 42874-03-3, Oxyfluorfen 43121-43-3, Bayleton 50594-66-6, Acifluorfen 51235-04-2, Hexazinone 51276-47-2, Glufosinate 51338-27-3, Diclofop methyl 52645-53-1, Permethrin 55219-65-3, Triadimenol 55335-06-3, Triclopyr 55512-33-9, Pyridate 57837-19-1, Metalaxyl 57966-95-7, Cymoxanil 59756-60-4, Fluridone 60207-90-1, Propiconazole 64902-72-3, Chlorsulfuron 66215-27-8, Cyromazine 66230-04-4, Esfenvalerate 66441-23-4, Fenoxaprop ethyl 68359-37-5, Cyfluthrin 69806-40-2, Haloxypop methyl 72178-02-0, Fomesafen 74051-80-2, Sethoxydim 74115-24-5, Clofentezine 74223-56-6, Sulfometuron 76578-12-6, Quizalofop 77501-63-4, Lactofen 77732-09-3, Oxadixyl 78587-05-0, Hexythiazox 79241-46-6 79277-67-1, Thifensulfuron 79510-48-8, Metsulfuron 79538-32-2, Tefluthrin 81334-34-1, Imazapyr 81335-37-7, Imazaquin 81335-77-5, Imazethapyr 81777-89-1, Clomazone 82558-50-7, Isoxaben 82657-04-3, Bifenthrin 99129-21-2, Clethodim 99283-00-8, Chlorimuron 99283-01-9, Bensulfuron 100728-84-5, Imazamethabenz 106040-48-6, Tribenuron 111991-09-4, Nicosulfuron 112410-23-8, Tebufenozide 113036-87-6, Primisulfuron 119446-68-3, Difenconazole 131341-86-1, Fludioxonil 131860-33-8, Azoxystrobin 138261-41-3, Imidacloprid  
 RL: AGR (Agricultural use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)
- IT 70288-86-7, Ivermectin  
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nonaq. compns. for administration of pharmaceuticals or agrochems. or biocides)

- IT 57-55-6, Propylene glycol 100-51-6, Benzenemethanol 872-50-4,  
N-Methylpyrrolidone 9005-64-5, polysorbate 20 9005-65-6, polysorbate  
80 **9005-70-3**, polysorbate85  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(nonaq. compns. for administration of pharmaceuticals or agrochems. or  
biocides).
- IT 57-62-5, Chlortetracycline 57-68-1, Sulfamethazine 59-40-5,  
Sulfaquinoxaline 60-54-8, Tetracycline 79-57-2, Oxytetracycline  
110-85-0, Piperazine 114-07-8, Erythromycin 121-25-5, Amprolium  
122-11-2, Sulfadimethoxine 154-21-2, Lincomycin 1401-69-0, Tylosin  
1404-04-2, Neomycin 1405-87-4, Bacitracin 1672-91-9,  
Sulfachlorpyrazine 1695-77-8, Spectinomycin 51570-36-6, Milbemycin  
71751-41-2, Abamectin 73989-17-0, Avermectin 98105-99-8, Sarafloxacin  
117704-25-3, Doramectin  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(nonaq. compns. for administration of pharmaceuticals or agrochems. or  
biocides)
- IT **11141-17-6, Azadirachtin**  
RL: AGR (Agricultural use); THU (Therapeutic use); BIOL (Biological  
study); USES (Uses)  
(nonaq. compns. for administration of pharmaceuticals or agrochems. or  
biocides)
- RN 11141-17-6 HCAPLUS  
CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid,  
10-(acetyloxy)octahydro-3,5-dihydroxy-4-methyl-8-[[ (2E)-2-methyl-1-oxo-2-  
butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-  
7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl  
ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



- IT **9005-70-3**, polysorbate85  
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(nonaq. compns. for administration of pharmaceuticals or agrochems. or  
biocides)
- RN 9005-70-3 HCAPLUS  
CN Sorbitan, tri-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (9CI)  
(CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L50 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2001 ACS  
 AN 2000:680741 HCAPLUS  
 DN 133:330888  
 TI Response of two lacewing species to biorational and broad-spectrum insecticides  
 AU Schuster, David J.; Stansly, Philip A.  
 CS Gulf Coast Research & Education Center, University of Florida, Bradenton, FL, 34203, USA  
 SO Phytoparasitica (2000), 28(4), 297-304  
 CODEN: PHPRA2; ISSN: 0334-2123  
 PB Priel Publishers  
 DT Journal  
 LA English  
 CC 5-4 (Agrochemical Bioregulators)  
 Section cross-reference(s): 4  
 AB Green lacewings, including *Chrysoperla rufilabris* (Burmeister) and *Ceraeochrysa cubana* (Hagen), are predators of small, soft-bodied insects including whiteflies. The silverleaf whitefly, *Bemisia argentifolii* Bellows & Perring [formerly *B. tabaci* (Gennadius) strain B], is an important pest of agronomic, **vegetable** and ornamental crops. Practical use of these lacewings as biol. control agents would be facilitated by better understanding of their responses to both biorational (selective) and broad-spectrum insecticides. The topical and residual toxicity of **azadirachtin** (Azatin-EC), insecticidal soap (M-Pede), paraffinic oil (Sunspray Ultra-Fine Spray Oil) and the pyrethroid bifenthrin (Brigade) to eggs, larvae and adults of the lacewings were studied in the lab. Larvae of *C. cubana* were much more tolerant to residues of bifenthrin than was *C. rufilabris* and were somewhat more tolerant to topically applied soap. At normal field concns., **azadirachtin** (0.005%, by wt a.i.), paraffinic oil (1.0% by vol.) and soap (1.0% by vol.) were not toxic to larvae or adults of either species either topically or residually. Oil was toxic topically to eggs but **azadirachtin** and soap were not. Bifenthrin was toxic topically and residually to larvae and adults but was not so toxic to eggs as was oil. Thus, selectivity of all materials tested was relative to lacewing species and life stage. The relative tolerance to insecticide residues exhibited by *C. cubana* larvae may be related to its trash-carrying habit, suggesting that use of trash-carrying chrysopids in place of non-trash carriers for augmentative biol. control would increase options for non-disruptive chem. intervention when necessary.  
 ST insecticide **azadirachtin** soap paraffinic oil bifenthrin toxicity lacewing; *Chrysoperla* *Ceraeochrysa* insecticide toxicity *Bemisia* IPM  
 IT Paraffin oils  
 RL: ADV (Adverse effect, including toxicity); AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (response of lacewing species to)  
 IT Insecticides  
 Integrated pest control  
 (response of lacewing species to biorational and broad-spectrum insecticides)  
 IT *Ceraeochrysa cubana*  
*Chrysoperla rufilabris*  
 (response to biorational and broad-spectrum insecticides of)  
 IT Silverleaf whitefly  
 (response to biorational and broad-spectrum insecticides of lacewings, predators of)  
 IT Pesticides  
 (toxicity; response of lacewing species to biorational and broad-spectrum insecticides)  
 IT 11141-17-6, **Azadirachtin** 82657-04-3, (Brigade)  
 158319-17-6, (M-Pede)  
 RL: ADV (Adverse effect, including toxicity); AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (response of lacewing species to)

RE.CNT 33

RE

- (1) Breene, R; Biol Control 1992, V2, P9
- (2) Butler, G; Fla Entomol 1993, V76, P161 HCAPLUS
- (3) Cahill, M; Bull Entomol Res 1996, V86, P343 HCAPLUS
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- (5) Coudriet, D; Environ Entomol 1985, V14, P776
- (6) Dean, D; Environ Entomol 1995, V24, P1562
- (7) Dean, D; Ph D dissertation, Univ of Florida 1994
- (8) Denholm, I; Bemisia 1995: Taxonomy, Biology, Damage, Control and Management 1996, P577
- (9) Dimetry, N; Anz Schadlingskde Pflanzenschutz Umweltschutz 1996, V69, P140
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- (12) Hassan, S; Z Angew Entomol 1987, V103, P92 HCAPLUS
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- (14) Hunter, C; Environ Monitoring and Pest Mgmt 1997
- (15) Ishaaya, I; Environ Entomol 1981, V10, P681 HCAPLUS
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- (28) Stansly, P; Biol Control 1997, V9, P49
- (29) Stansly, P; Bull Entomol Res 1996, V87, P525
- (30) Stansly, P; Proc Fla State Hortic Soc 1994, V107, P167
- (31) Stansly, P; Proc Florida Tomato Institute, Vegetable Crops Special Ser SS HOS 1992, V1, P54
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- (33) Vavrina, C; HortScience 1995, V30, P1406 HCAPLUS

IT 11141-17-6, **Azadirachtin**

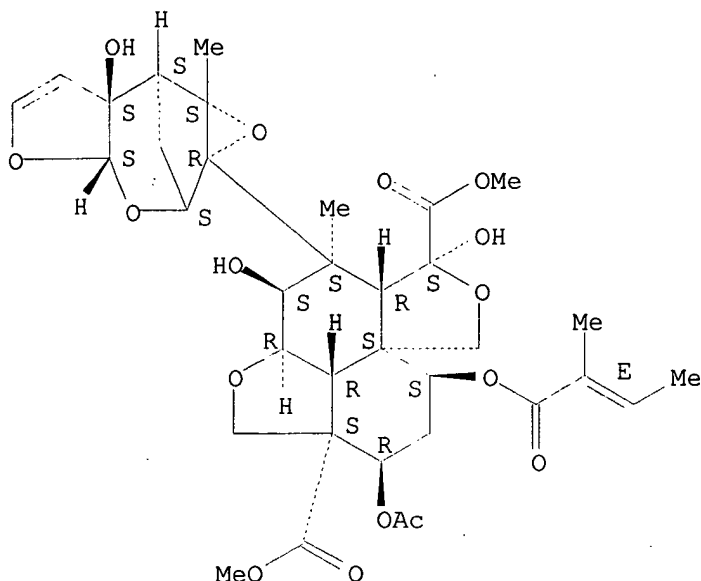
RL: ADV (Adverse effect, including toxicity); AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(response of lacewing species to)

RN 11141-17-6 HCAPLUS

CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid,  
10-(acetyloxy)octahydro-3,5-dihydroxy-4-methyl-8-[[ (2E)-2-methyl-1-oxo-2-butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



L50 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2001 ACS  
 AN 2000:573337 HCAPLUS  
 DN 133:248346  
 TI Comparative laboratory toxicity of neem pesticides to honey bees (Hymenoptera: Apidae), their mite parasites *Varroa jacobsoni* (Acari: Varroidae) and *acarapis woodi* (Acari: Tarsonemidae), and brood pathogens *Paenibacillus* larvae and *Ascophaera apis*  
 AU Melathopoulos, Adony P.; Winston, Mark L.; Whittington, Robin; Smith, Tasha; Lindberg, Chris; Mukai, Amy; Moore, Margo  
 CS Department of Biological Sciences, Simon Fraser University, Burnaby, BC, V5A 1S6, Can.  
 SO J. Econ. Entomol. (2000), 93(2), 199-209  
 CODEN: JEENAI; ISSN: 0022-0493  
 PB Entomological Society of America  
 DT Journal  
 LA English  
 CC 5-4 (Agrochemical Bioregulators)  
 Section cross-reference(s): 4  
 AB Lab. bioassays were conducted to evaluate neem oil and neem ext. for the management of key honeybee (*Apis mellifera* L.) pests. Neem pesticides inhibited the growth of *Paenibacillus* larvae (Ash, Priest & Collins) in vitro but had no effect on the growth of *Ascophaera apis* (Olive & Spiltoir). **Azadirachtin**-rich ext. (neem-aza) was 10 times more potent than crude neem oil (neem oil) against *P. larvae* suggesting that **azadirachtin** is a main antibiotic component in neem. Neem-aza, however, was ineffective at controlling the honeybee mite parasites *Varroa jacobsoni* (Oudemans) and *Acarapis woodi* (Rennie). Honeybees also were deterred from feeding on sucrose syrup contg. >0.01 mg/mL of neem-aza. However, neem oil applied topically to infested bees in the lab. proved highly effective against both mite species. Approx. 50-90% *V. jacobsoni* mortality was obsd. 48 h after treatment with assocd. bee mortality lower than 10%. Although topically applied neem oil did not result in direct *A. woodi* mortality, it offered significant protection of bees from infestation by *A. woodi*. Other vegetable and petroleum-based oils also offered selective control of honeybee mites, suggesting neem oil has both a phys. and a toxicol. mode of action. Although oils are not as selective as the *V. jacobsoni* acaricide .tau.-fluvalinate, they nonetheless hold promise for the simultaneous management of several honey bee pests.  
 ST honeybee pesticide neem



- IT Acarapis woodi  
 Ascospaera apis  
 Honeybee  
 Paenibacillus  
 Pesticides  
 Varroa jacobsoni  
 (effect of neem products on honeybee pests)
- IT Margosa (Melia azadirachta)  
 (ext., neem-aza; effect of neem products on honeybee pests)
- IT Fats and Glyceridic oils, biological studies  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (margosa; effect of neem products on honeybee pests)

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L50 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2001 ACS

AN 2000:429461 HCAPLUS

DN 133:131150

TI Effect of fatty acids and oils on photodegradation of **azadirachtin**  
-A

AU Johnson, Sapna; Patra, Dipankar; Dureja, P.

CS Division of Agricultural Chemicals, Indian Agricultural Research Institute, New Delhi, 110012, India

SO J. Environ. Sci. Health, Part B (2000), B35(4), 491-501

CODEN: JPFCD2; ISSN: 0360-1234

PB Marcel Dekker, Inc.

DT Journal

LA English

CC 5-4 (Agrochemical Bioregulators)

AB **Azadirachtin-A**, on exposure to UV-light (254 nm) as a thin film on glass surface, gave an isomerized (Z)-2-methylbut-2-enoate product. Half-life of **azadirachtin-A** as thin film under UV light was found to be 48 min. **Azadirachtin-A** was irradiated along with satd. and unsatd. fatty acids, and fatty oils under UV light as thin film. Satd. fatty acid increased the rate of photodegrdn. of **azadirachtin-A**, whereas unsatd. fatty acids such as oleic, linoleic and elaidic acid reduced the rate of degrdn. Castor, linseed and olive oil accelerated the rate of degrdn., whereas neem oil showed no or little change in the rate of degrdn. of **azadirachtin-A**.

ST fatty acid **vegetable oil azadirachtin**

A photodegrdn

IT Photolysis

(effect of fatty acids and oils on photodegrdn. of **azadirachtin**  
-A)

IT Castor oil

Fatty acids, miscellaneous

Linseed oil

Olive oil

RL: MSC (Miscellaneous)

(effect of fatty acids and oils on photodegrdn. of **azadirachtin**  
-A)

IT Fats and Glyceridic oils, miscellaneous

RL: MSC (Miscellaneous)

(margosa; effect of fatty acids and oils on photodegrdn. of **azadirachtin-A**)

IT **Fats and Glyceridic oils, miscellaneous**

RL: MSC (Miscellaneous)

(**vegetable**; effect of fatty acids and **oils** on photodegrdn. of **azadirachtin-A**)

IT 158110-97-5

RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)  
(**azadirachtin-A** photodegrdn. product)

IT 57-10-3, Palmitic acid, miscellaneous 57-11-4, Stearic acid,

miscellaneous 60-33-3, Linoleic acid, miscellaneous 112-79-8, Elaidic acid 112-80-1, Oleic acid, miscellaneous 506-30-9, Arachidic acid 544-63-8, Myristic acid, miscellaneous  
 RL: MSC (Miscellaneous)

(effect of fatty acids and oils on photodegrdn. of **azadirachtin**  
 -A)

IT 11141-17-6, **Azadirachtin-A**

RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (effect of fatty acids and oils on photodegrdn. of **azadirachtin**  
 -A)

RE.CNT 9

RE

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IT 158110-97-5

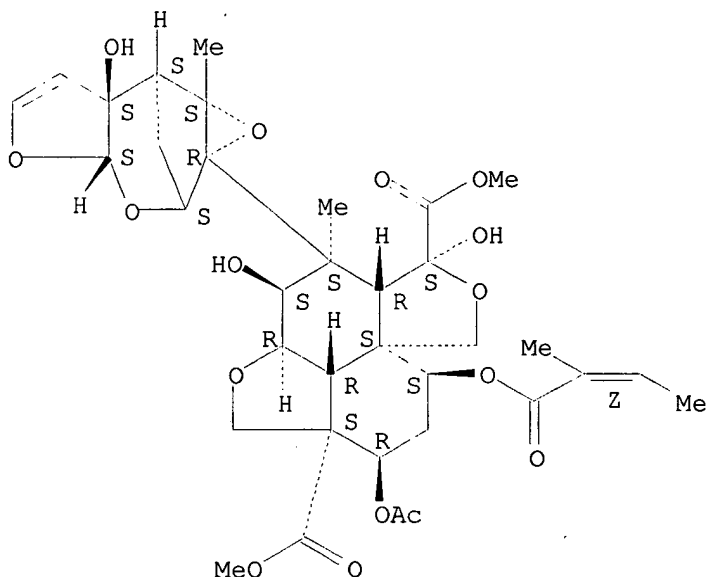
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)  
 (azadirachtin-A photodegrdn. product)

RN 158110-97-5 HCAPLUS

CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid, 10-(acetyloxy)octahydro-3,5-dihydroxy-4-methyl-8-[[ (2Z)-2-methyl-1-oxo-2-butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



IT 11141-17-6, **Azadirachtin-A**

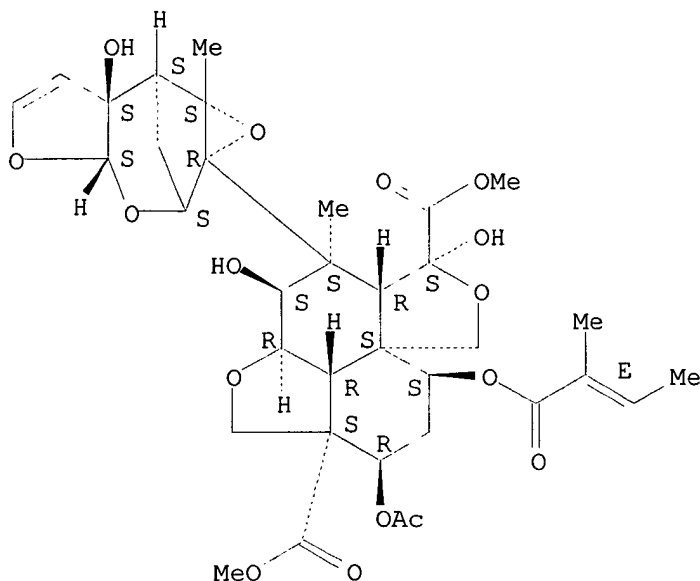
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (effect of fatty acids and oils on photodegrdn. of **azadirachtin**  
 -A)

RN 11141-17-6 HCAPLUS

CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid, 10-(acetyloxy)octahydro-3,5-dihydroxy-4-methyl-8-[[ (2E)-2-methyl-1-oxo-2-butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl

ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



L50 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2001 ACS  
 AN 2000:134367 HCAPLUS  
 DN 132:233000  
 TI Effects of three plant extracts and achool: a commercial neem formulation on growth and development of three noctuid pests  
 AU Vyas, B. N.; Ganesan, S.; Raman, K.; Godrej, N. B.; Mistry, K. B.  
 CS Godrej Agrovet Limited, Mumbai, 400 079, India  
 SO Azadirachta indica A. Juss., Int. Neem Conf. (1999), Meeting Date 1996, 103-109. Editor(s): Singh, R. P.; Saxena, R. C. Publisher: Science Publishers, Enfield, N. H.  
 CODEN: 68RFAS  
 DT Conference  
 LA English  
 CC 5-4 (Agrochemical Bioregulators)  
 Section cross-reference(s): 11  
 AB Exts. from neem (*Azadirachta indica* A. Juss.) exhibit significant control of many crop pests. M. Grainge and S. Ahmed (1988) listed nearly 2400 plant species which reportedly possess pest control properties. We evaluated the effect of methanolic seed exts. of custard apple (*Annona squamosa* L), wild castor (*Jatropha curcas* L) and mahua (*Bassia latifolia* Roxb.) vis-a-vis a com. neem formulation currently being marketed in India. This formulation is in a water-sol. powder form contg. **azadirachtin**, azadiradion, and nimbecinol + epinimbecinol at 300, 500 and 2000 ppm resp. These preps. were used on three important noctuid pests (*Earias vitella* F., *Helicoverpa armigera* (Hubner) and *Spodoptera litura* F.). Different indexes for growth disruption, such as larval duration, pupal wt., percentage pupation, pupal duration and total developmental growth index, indicated that all plant preps. affected the test larvae by either direct killing or through interference with metamorphosis. Percentage mortality for neem formulation (Achool), annona, jatropha and mahua exts. were 58, 89, 68, 21 for *E. vitella*; 100, 100, 60, 66 for *H. armigera* and 28, 44, 11 and 5 for *S. litura*, resp. In addn. to larval mortality, the exts. also reduced the larval growth and total development, prolonged larval duration to reach pupation, and lowered pupal wts., resulting in the formation of deformed individuals. The data revealed the order of effectiveness of individual plant exts. as

custard apple>neem>easter>mahua. Among the insect species examd., Helicoverpa and Earias appeared more susceptible, compared with Spodoptera. Other plant species such as custard apple can supplement neem formulations in an environmentally-friendly pest control program.

ST plant ext insecticide Spodoptera Helicoverpa Earias; **azadirachtin**  
insecticide noctuid pests

IT Earias vitella  
Helicoverpa armigera  
Insecticides  
Mahua (Madhuca latifolia)  
Physic nut (Jatropha curcas)  
Prodenia litura  
Sweetsop (Annona squamosa)  
(insecticidal activity of plant exts. and ahook on noctuid pests)

IT Fats and Glyceridic oils, biological studies  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(margosa; insecticidal activity of plant exts. and ahook on noctuid pests)

IT **11141-17-6, Azadirachtin**  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(insecticidal activity of plant exts. and ahook on noctuid pests)

RE.CNT 23

RE

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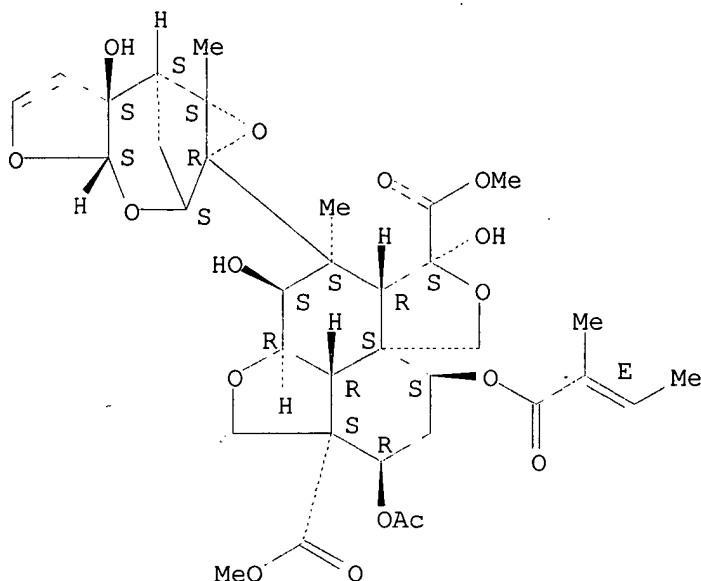
IT **11141-17-6, Azadirachtin**  
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(insecticidal activity of plant exts. and ahook on noctuid pests)

RN 11141-17-6 HCAPLUS

CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid,  
10-(acetyloxy)octahydro-3,5-dihydroxy-4-methyl-8-[[ (2E)-2-methyl-1-oxo-2-butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



L50 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2001 ACS

AN 1998:710358 HCAPLUS

DN 130:77445

TI Synergistic effect of some additives on the biological activity and toxicity of neem-based formulations against the cowpea aphid, *Aphis craccivora*

AU Dimetry, Nadia Z.; El-Hawary, Fatma M.

CS Department of Pests and Plant Protection, National Research Centre, Cairo, Egypt

SO Insect Sci. Its Appl. (1997), 17(3/4), 395-399

CODEN: ISIADL; ISSN: 0191-9040

PB ICIPE Science Press

DT Journal

LA English

CC 5-4 (Agrochemical Bioregulators)

AB The effects of various concns. of Neem Azal-T and Neem Azal-T/S on the biol. and percentage mortality of adult *A. craccivora* were studied under lab. conditions. Both exts. had an aphicidal effect against the adults and significantly decreased their fecundities and longevities. Addn. of synergists such as Et oleate, **sesame oil** and DMSO improved the aphicidal effects of both insecticides. The biol. activity of Neem Azal-T/S was enhanced only with suitable additives, as they adversely affected the fecundity and longevity in comparison to the ext. alone. Addn. of CaCO<sub>3</sub> to the above exts. had no effect on either neem **seed** ext. formulation.

ST cowpea aphid insecticide neem additive synergism

IT Insecticides

(aphicides; synergistic effect of additives on the control of cowpea aphid by neem-based formulations)

IT **Sesame oil**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)

(effect on the control of cowpea aphid by neem-based formulations)

IT *Aphis craccivora*

(synergistic effect of additives on the control of cowpea aphid by neem-based formulations)

IT 67-68-5, DMSO, biological studies 111-62-6, Ethyl oleate

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)

(effect on the control of cowpea aphid by neem-based formulations)

IT 11141-17-6, Neem Azal-T 176087-48-2, Neem Azal-T/S

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)

(synergistic effect of additives on the control of cowpea aphid by

neem-based formulations)

RE.CNT 22

RE

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IT 11141-17-6, Neem Azal-T

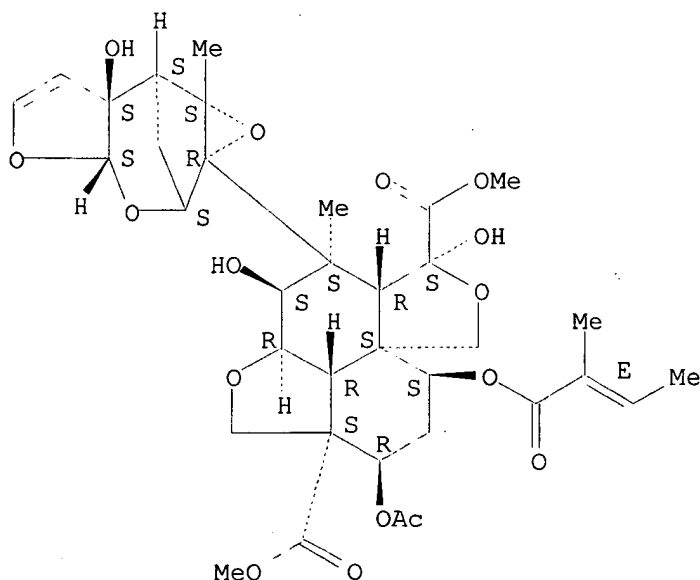
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (synergistic effect of additives on the control of cowpea aphid by  
 neem-based formulations)

RN 11141-17-6 HCAPLUS

CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid,  
 10-(acetyloxy)octahydro-3,5-dihydroxy-4-methyl-8-[[[(2E)-2-methyl-1-oxo-2-  
 butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-  
 7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl  
 ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)- (9CI) (CA INDEX NAME)

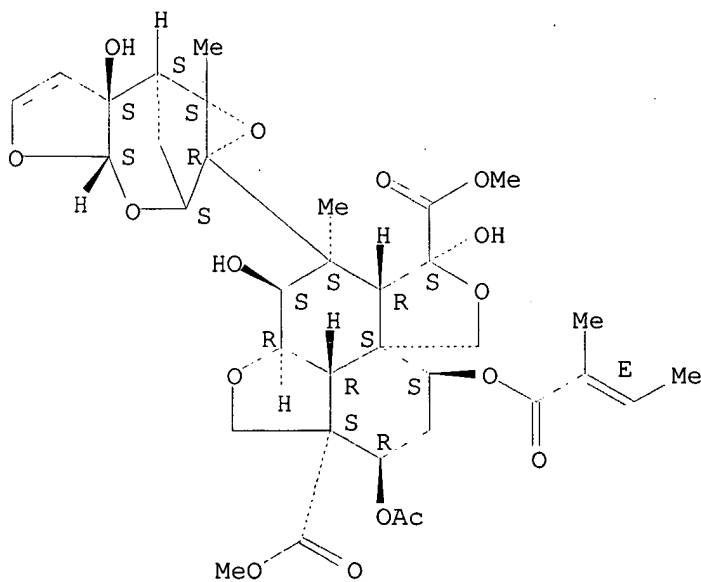
Absolute stereochemistry.

Double bond geometry as shown.



- TI The effectiveness of plant oils as protectants of mung bean *Vigna radiata* against *Callosobruchus chinensis* infestation
- AU Mansour, M. H.
- CS Pests and Plant Protection Dept., National Research Centre, Cairo, Egypt
- SO Pract. Oriented Results Use Prod. Neem-Ingredients Pheromones, Proc. Workshop, 5th (1997), Meeting Date 1996, 189-200. Editor(s): Kleeberg, Hubertus; Zebitz, Claus P. W. Publisher: Druck & Graphic, Giessen, Germany.
- CODEN: 64HNA8
- DT Conference
- LA English
- CC 5-4 (Agrochemical Bioregulators)
- AB Seeds of mung bean are highly susceptible to *Callosobruchus chinensis* infestation. Neem Azal-S, soybean and sunflower oils were evaluated as protectants of mung bean seeds against *C. chinensis* infestation. NeemAzal-S, at 0.5%, inflicted 100% mortality of the different stages.
- ST *Vigna Callosobruchus* insecticide neem **vegetable oil**
- IT *Callosobruchus chinensis*  
*Vigna radiata*  
 (neem and plant oil protectants of mung bean against *Callosobruchus chinensis* infestation)
- IT Soybean oil  
 Sunflower oil  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (protectant of mung bean against *Callosobruchus chinensis* infestation)
- IT **11141-17-6**, Neem Azal  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (NeemAzal-S; protectant of mung bean against *Callosobruchus chinensis* infestation)
- IT **11141-17-6**, Neem Azal  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (NeemAzal-S; protectant of mung bean against *Callosobruchus chinensis* infestation)
- RN 11141-17-6 HCAPLUS
- CN 1H,7H-Naphtho[1,8-bc:4,4a-c']difuran-5,10a(8H)-dicarboxylic acid, 10-(acetyloxy)octahydro-3,5-dihydroxy-4-methyl-8-[[ (2E)-2-methyl-1-oxo-2-butenyl]oxy]-4-[(1aR,2S,3aS,6aS,7S,7aS)-3a,6a,7,7a-tetrahydro-6a-hydroxy-7a-methyl-2,7-methanofuro[2,3-b]oxireno[e]oxepin-1a(2H)-yl]-, dimethyl ester, (2aR,3S,4S,4aR,5S,7aS,8S,10R,10aS,10bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.





=> e e3+all

E1 54 --> Neem oil/CT  
HN Valid heading during volumes 126-130 (1997-June 1999)  
only.  
E2 NEW Fats and Glyceridic oils (L) margosa/CT  
\*\*\*\*\* END\*\*\*

=> fil uspatful

FILE 'USPATFULL' ENTERED AT 18:33:39 ON 07 AUG 2001  
CA INDEXING COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 7 Aug 2001 (20010807/PD)  
FILE LAST UPDATED: 7 Aug 2001 (20010807/ED)  
HIGHEST GRANTED PATENT NUMBER: US6272681  
HIGHEST APPLICATION PUBLICATION NUMBER: US2001011386  
CA INDEXING IS CURRENT THROUGH 7 Aug 2001 (20010807/UPCA)  
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 7 Aug 2001 (20010807/PD)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2001  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2001

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>>> USPTO Manual of Classifications in the /NCL, /INCL, and /RPCL <<<  
>>> fields. This thesaurus includes catchword terms from the <<<  
>>> USPTO/MOC subject headings and subheadings. Thesauri are also <<<  
>>> available for the WIPO International Patent Classification <<<  
>>> (IPC) Manuals, editions 1-6, in the /IC1, /IC2, /IC3, /IC4, <<<  
>>> /IC5, and /IC (/IC6) fields, respectively. The thesauri in <<<  
>>> the /IC5 and /IC fields include the corresponding catchword <<<  
>>> terms from the IPC subject headings and subheadings. <<<

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substance identification.

=> d bib abs kwic tot 164

L64 ANSWER 1 OF 2 USPATFULL  
AN 2000:28024 USPATFULL  
TI Ester compounds  
IN Ujihara, Kazuya, Yokohama, Japan  
PA Sumitomo Chemical Company, Limited, Osaka, Japan (non-U.S. corporation)  
PI US 6034128 20000307  
AI US 1999-323132 19990601 (9)  
PRAI JP 1998-160437 19980609  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Geist, Gary; Assistant Examiner: Davis, Brian J.  
LREP Stevens, Davis, Miller & Mosher, L.L.P.  
CLMN Number of Claims: 14  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1443

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An ester compound represented by the formula: ##STR1## wherein R is a  
hydrogen atom, a C.sub.1 -C.sub.3 alkyl group unsubstituted or  
substituted with one or more halogen atoms, an allyl group unsubstituted  
or substituted with one or more halogen atoms, or a propargyl group  
unsubstituted or substituted with one or more halogen atoms; and X is a  
hydrogen atom, a halogen atom, a C.sub.1 -C.sub.3 alkyl group  
unsubstituted or substituted with one or more halogen atoms, a C.sub.2

-C.sub.3 alkenyl group unsubstituted or substituted with one or more halogen atoms, a C.sub.2 -C.sub.3 alkynyl group unsubstituted or substituted with one or more halogen atoms, a C.sub.1 -C.sub.3 alkoxy group unsubstituted or substituted with one or more halogen atoms, a C.sub.1 -C.sub.3 alkylthio group unsubstituted or substituted with one or more halogen atoms, or a C.sub.1 -C.sub.3 alkoxyethyl group containing a C.sub.1 -C.sub.3 alkoxy group unsubstituted or substituted with one or more halogen atoms, has an excellent pest-controlling effect.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM [3,6-bis(2-chlorophenyl)-1,2,4,5-tetrazine]; Pyridaben [2-tert-butyl-5-(4-tert-butylbenzylthio)-4-chloropyridazin-3(2H)-one]; Fenpyroximate [tert-butyl (E)-4-[(1,3-dimethyl-5-phenoxy-pyrazol-4-yl)methyleneaminoxyethyl]benzoate]; Tebufenpyrad [N-4-tert-butylbenzyl)-4-chloro-3-ethyl-1-methyl-5-pyrazolecarboxamide]; Polynactin complexes [tetranactin, dinactin and trinactin]; Pyrimidifen [5-chloro-N-[2-(4-(2-ethoxyethyl)-2,3-dimethylphenoxy)-ethyl]-6-ethylpyrimidin-4-amine]; Milbemectin; Abamectin; ivermectin; **azadirachtin** [AZAD], etc. The repellents include, for example, 3,4-caranediol, N,N-diethyl-m-toluamide, 1-methylpropyl 2-(2-hydroxyethyl)-1-piperidinecarboxylate, p-menthane-3,8-diol, and plant essential oils such as hyssop oil.

DETD . . . present compounds in a mixture of 35 parts of xylene and 35 parts of dimethylformamide, adding thereto 14 parts of **polyoxyethylene** styryl phenyl ether and 6 parts of calcium dodecylbenzenesulfonate, and thoroughly stirring and mixing the resultant mixture.

DETD . . . present compounds 1 to 200 are obtained by mixing 20 parts of each of the present compounds, 1.5 parts of **sorbitan trioleate** and 28.5 parts of an aqueous solution containing 2 parts of a poly(vinyl alcohol), finely grinding the resulting mixtures to.

## L64 ANSWER 2 OF 2 USPATFULL

AN 95:84404 USPATFULL

TI Hydrazone derivatives, process for producing same, insecticides and/or acaricides containing same as active ingredient and intermediate compounds thereof

IN Taki, Toshiaki, Toyonaka, Japan  
Kisida, Hiroshi, Takarazuka, Japan  
Saito, Shigeru, Takarazuka, Japan  
Isayama, Shinji, Takarazuka, Japan

PA Sumitomo Chemical Co., Ltd., Osaka, Japan (non-U.S. corporation)

PI US 5451607 19950919

AI US 1993-47490 19930419 (8)

PRAI JP 1992-131616 19920423

DT Utility

FS Granted

EXNAM Primary Examiner: O'Sullivan, Peter

LREP Birch, Stewart, Kolasch & Birch

CLMN Number of Claims: 20

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 3491

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB There are disclosed hydrazone derivatives of the general formula [I]:  
##STR1## wherein R.sup.1 is halogen, etc.; R.sup.2 is hydrogen or C.sub.1 -C.sub.6 alkyl, etc.; R.sup.3 is hydrogen or C.sub.1 -C.sub.6 alkyl, etc.; R.sup.4 is hydrogen or C.sub.1 -C.sub.6 alkyl, etc.; R.sup.5 is C.sub.1 -C.sub.6 alkyl, etc.; R.sup.6 is hydrogen or C.sub.1 -C.sub.6 alkyl, etc.; A is (CH.sub.2).sub.t, O, S(O).sub.n, etc.; a is an integer of 1 to 4; n is an integer of 0 to 2; and t is an integer of 1 to 3; as well as production processes therefor, insecticides and/or acaricides containing the same as an active ingredient and intermediate compounds thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . . oxide [hexakis(2-methyl-2-phenylpropyl)distannoxane],  
hexythiazox[(4RS,5RS)-5-(4-chlorophenyl)-N-chlorohexyl-4-methyl-2-oxo-  
1,3-thiazolidine-3-carboxamide], clofentezine[3,6-bis(2-chlorophenyl)-  
1,2,4,5-tetrazine], pyridaben [2-tert-butyl-5-[4-tert-butylbenzylthio]-4-  
chloropyridazin-3(2H)-one], fenpyroximate [tert-butyl  
(E)-4-[(1,3)-dimethyl-5-phenoxy-pyrazole-4-yl)methylene  
aminooxymethyl]benzoate], tebufenpyrad [N-(4-tert-butylbenzyl)-4-chloro-  
3-ethyl-1-methyl-5-pyrazole carboxamide], polynactins [tetranactin,  
dinactin, trinactin], milbemectin, avermectin, ivermectin  
**azadirachtin** [AZAD], pyrimidifen [ 5-chloro-N-{2-{4-(2-  
ethoxyethyl)-2,3-dimethylphenoxy}ethyl]-6-ethylpyrimidin-4-amine, etc.

DETD . . . . of compounds Nos. 1 to 1087 (10 parts) is dissolved in xylene  
(35 parts) and dimethylformamide (35 parts), to which  
**polyoxyethylene** styrylphenyl ether (14 parts) and calcium  
dodecylbenzenesulfonate (6 parts) are added, and the resulting mixture  
is well stirred to give. . . .

DETD Any one of compounds Nos. 1 to 1087 (20 parts) and **sorbitan**  
**trioleate** (1.5 parts) are mixed with an aqueous solution (28.5  
parts) containing polyvinyl alcohol (2 parts), and the resulting mixture  
is. . . .

=> fil wpix

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L78 ANSWER 1 OF 2 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 2001-275354 [29] WPIX

DNC C2001-083681

TI Use of an extract from the seed of *Centratherum anthelminticum* in a  
medicament for treatment of impetigo, acne and dermal fungal infection.

DC B04 C05 D22

IN SHAH, E

PA (SHAH-I) SHAH E

CYC 94

PI GB 2353706 A 20010307 (200129)\* 21p. A61K035-78

WO 2001017539 A1 20010315 (200129) EN A61K035-78

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE  
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000070200 A 20010410 (200137) A61K035-78

ADT GB 2353706 A GB 1999-20886 19990903; WO 2001017539 A1 WO 2000-GB3383

20000904; AU 2000070200 A AU 2000-70200 20000904

FDT AU 2000070200 A Based on WO 200117539

PRAI GB 1999-20886 19990903

IC ICM A61K035-78

ICA A61P017-00

ICI A61P017-04, A61P017-10, A61P031-10

AB GB 2353706 A UPAB: 20010528

NOVELTY - Use of an extract from the seeds of *Centrathium anthelminticum* in the manufacture of a medicament for treatment of impetigo, acne and fungal infections of the skin and nail is new.

DETAILED DESCRIPTION - AN INDEPENDENT CLAIM is included for a pharmaceutical composition for use in the treatment of skin disorders and fungal infections of skin and nails which comprises the herbal extract derived from *Centrathium anthelminticum*, *Melia azadirachta*, and one or more *Comiphora mukul*, *Withenia somnifera* and *Triphala*, the herbal extract being dispersed in a carrier for topical application or being in the form of a dry powder for the preparation of a potable decoction, a mouthwash or nasal drops.

ACTIVITY - Dermatological; Antiseborrheic; Fungicide.

'Anjali' healing cream was formulated from ghee (3 kg), boiled water (3 l), freeze dried extract of *Centrathium anthelminticum* seeds (100 g) and **sesame** oil treated with a paste of 100 g *Centrathium anthelminticum* seeds, 100 g rose petals, 100 g *Melia azadirachta* leaves, 50 g *Casia tora* seeds and water (500 ml). Of this preparation, 20 g was tested against *Propionibacterium acnes* NCTC 737 according to British Pharmacopoeia guidelines. After 14 days, the composition showed a log reduction of 5.32. 'Anjali' healing cream was formulated from ghee (3 kg), boiled water (3 l), freeze dried extract of *Centrathium anthelminticum* seeds (100 g) and **sesame** oil treated with a paste of 100 g *Centrathium anthelminticum* seeds, 100 g rose petals, 100 g *Melia azadirachta* leaves, 50 g *Casia tora* seeds and water (500 ml). Of this preparation, 20 g was tested against *Propionibacterium acnes* NCTC 737 according to British Pharmacopoeia guidelines. After 14 days, the composition showed a log reduction of 5.32.

MECHANISM OF ACTION - None given.

USE - For treatment of impetigo, acne and fungal infections of the skin (claimed).

ADVANTAGE - Gives rapid healing with little scarring and without the side effects of antibiotics.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B04-A10; B12-M11G; B14-A04; B14-N17; C04-A10; C12-M11G; C14-A04; C14-N17; D09-E

TECH UPTX: 20010528

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Composition: The extract may be used in conjunction with an extract from the leaves, bark or roots of *Melia azadirachta*, an extract from the seeds of *Casia tora* or an extract of *Picrorrhiza kurroa*, *Comiphora mukul*, *Withenia somnifera*, *Tinospora cordifolia*, *Asparagus racemosus* and/or *Triphala*. The powder is a spray dried powder or is topical application and includes Ghee as a carrier.

L78 ANSWER 2 OF 2 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1982-34279E [17] WPIX

TI Antibacterial comprising extract obtd. from *Melia azadirachta* - by extn. using organic solvent which is then washed with hydrophilic solvent, both of specified dielectric constants.

DC B04

PA (TERU) TERUMO CORP

CYC 1

PI JP 57048922 A 19820320 (198217)\* 6p

JP 59035885 B 19840831 (198439)

ADT JP 57048922 A JP 1980-124354 19800908

PRAI JP 1980-124354 19800908

IC A61K035-78

AB JP 57048922 A UPAB: 19930915

Antibacterial agent comprising an extract, as an active ingredient, obtd. by extracting cortices of *Melia azadirachta* with an organic solvent (I) having dielectric constant of up to 10 and then extracting the raffinate with a hydrophilic solvent (II) having dielectric constant of 15-35.

The extract shows antibacterial activity against gram-positive bacteria. The LD50 value in mice is 1100 mg/kg (i.p.). The extract can be administered via injection route. Examples of (I) are n-hexane (1.9), benzene (2.3), chloroform (4.7) and ethyl acetate (6.0). Examples of (II) are water (20.7), ethanol (24.3) and methanol (32.6).

The extract can be suspended in saline, CMC or glucose solution. Such suspension can be used for injection. Also, the extract may be formulated into an emulsion together with liq. paraffin, **sesame** oil, peanut oil or sorbitan fatty acid ester.

FS CPI  
FA AB  
MC CPI: B04-A07F; B12-A01

=> fil napral

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L97 ANSWER 1 OF 1 NAPRALERT COPYRIGHT (C) 2001 BD. TRUSTEES, U. IL.  
AN 92:80761 NAPRALERT  
DN T02077  
TI USE OF **NEEM** (**AZADIRACHTA** INDICA A. JUSS.) SEED AS A  
FEEDING INHIBITOR AGAINST ANTIGASTRA CATALAUNALIS DUPON.  
(LEPIDOPTERA, PYRALIDAE): A **SESAME** (SESAMUM INDICUM L.) PEST IN  
NIGERIA  
AU CHADHA S S  
CS AGR RES STA, MOKWA NIGERIA  
SO E AFR AGR FOR J (1977) 42 p. 257-262.  
DT Journal  
LA ENGLISH  
OS MAPA 1:7906  
CHC 740

=> fil agricola

FILE 'AGRICOLA' ENTERED AT 18:46:10 ON 07 AUG 2001

FILE COVERS 1970 TO 18 Jul 2001 (20010718/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d'all tot

L106 ANSWER 1 OF 6 AGRICOLA

AN 1998:42363 AGRICOLA

DN IND21233608

TI Integrated management of root knot nematode *Meloidogyne javanica* infecting tomato using organic materials and *Paecilomyces lilacinus*.

AU Khan, T.A.; Saxena, S.K.

AV DNAL (TD930.A32)

SO Bioresource technology, Sept 1997. Vol. 61, No. 3. p. 247-250

Publisher: Oxford, U.K. : Elsevier Science Limited.

CODEN: BIRTEB; ISSN: 0960-8524

NTE Includes references

CY England; United Kingdom

DT Article

FS Non-U.S. Imprint other than FAO

LA English

AB Amendments of oil-cakes, bone and horn meals in soil increased tomato-plant growth and reduced the nematode multiplication. Highest improvement in plant growth and reduced reproduction factor and root gallings were recorded in **neem**-cake amended soil. The least effect was with **sesame**-cake. The integration of oil-cakes (except mahua-cake), bone and horn meals with *P. lilacinus*, resulted in increased plant growth and reduced population build up of nematodes and root gallings. The groundnut-cake with *P. lilacinus* was most effective. The organic amendments increased the parasitism of *P. lilacinus* on root-knot nematodes.

CC F822 Pests of Plants, Nematods; J500 Soil Fertility, Fertilizers, and Manures

CT biological control; cultural control; *lycopersicon esculentum*; soil amendments

L106 ANSWER 2 OF 6 AGRICOLA

AN 97:2744 AGRICOLA

DN IND20539750

TI Photostabilization of the botanical insecticide **azadirachtin** in the presence of lecithin as UV protectant.

AU Sundaram, K.M.S.; Curry, J.

CS Natural Resources Canada, Sault Ste. Marie, Ontario, Canada.

AV DNAL (TD172.J61)

SO Journal of environmental science and health. Part B: Pesticides, food contaminants, and agricultural wastes, 1996. Vol. B31 No. 5. p. 1041-1060

Publisher: New York, Marcel Dekker

CODEN: JPFCD2; ISSN: 0360-1234

NTE Includes references

CY New York (State); United States

DT Article

FS U.S. Imprints not USDA, Experiment or Extension

LA English

CC H000 Pesticides, General; K001 Forestry Related

CT acer; **azadirachtin**; foliage; formulations; half life; persistence; phosphatidylcholines; photolysis; protectants; stabilizing; **surfactants**; ultraviolet radiation

RN 11141-17-6 (AZADIRACHTIN)

L106 ANSWER 3 OF 6 AGRICOLA

AN 96:23252 AGRICOLA

DN IND20507339

TI Deposition and bioassay of insecticides applied by leaf dip and spray tower against *Bemisia argentifolii* nymphs (Homoptera: Aleyrodidae).

AU Liu, T.X.; Stansly, P.A.

- CS University of Florida, Immokalee, FL.  
 AV DNAL (SB951.P47)  
 SO Pesticide science, Aug 1995. Vol. 44, No. 4. p. 317-322.  
 Publisher: Sussex : John Wiley and Sons Limited.  
 CODEN: PSSCBG; ISSN: 0031-613X
- NTE Includes references  
 CY England; United Kingdom  
 DT Article  
 FS Non-U.S. Imprint other than FAO  
 LA English
- AB Two application methods, spray and leaf dip, were evaluated as bioassays for insecticides to nymphs of *Bemisia argentifolii* Bellows & Perring (formerly *Bemisia tabaci* Gennadius strain 'B'). Sprays were applied at different volumes and pressures with the Potter Spray Tower. Spray deposition was evaluated using a tracer dye, and also plain water in the case of the spray tower. Coverage on water-sensitive paper was evaluated with a computerized image-scanning system. Insecticide efficacy was evaluated as mortality to whitefly nymphs. Materials assayed included 'M-Pede' (an insecticidal soap), 'Sunspray' Ultra-Fine Spray Oil (a mineral oil), '**Margosan-O**' (an extracted concentration of **azadirachtin** + 10% **neem** oil), and bifenthrin ('Brigade' 10WP), a pyrethroid, with purified water as a control. Differing results were obtained with the two bioassay methods, depending on material tested. Mortality of whitefly nymphs from bifenthrin, and to a lesser extent **neem** extract, was largely independent of application method. In contrast, 'Sunspray' (mineral) oil, and to a lesser extent insecticidal soap, was more efficacious when applied as a dip than as a spray. Differences in respect of effects of application method on treatment mortality were attributed to differences between materials in mode of action.
- CC F821 Pests of Plants, Insects and other Arthropods  
 CT application methods; **azadirachtin**; *bemisia*; bioassays; efficacy; insect control; insecticides; mineral oils; mortality; nymphs; **surfactants**
- RN 8002-65-1 (NEEM OIL)  
 8020-83-5 (MINERAL OIL)  
 11141-17-6 (AZADIRACHTIN)  
 82657-04-3 (BIFENTHRIN)  
 8002-05-9Q, 8012-95-1Q, 8020-83-5Q, 67254-74-4Q (MINERAL OILS)
- L106 ANSWER 4 OF 6 AGRICOLA  
 AN 95:53985 AGRICOLA  
 DN IND20475983  
 TI Estimation of **azadirachtin-A** content of emulsifiable and solution concentrates of **neem**.  
 AU Azam, M.E.; Rengasamy, S.; Parmar, B.S.  
 CS Indian Agricultural Research Institute, New Delhi, India.  
 AV DNAL (S583.A7)  
 SO Journal of AOAC International, July/Aug 1995. Vol. 78, No. 4. p. 893-896  
 Publisher: Arlington, VA : AOAC International, c1992-  
 CODEN: JAINEE; ISSN: 1060-3271
- NTE Includes references  
 CY United States; Virginia  
 DT Article  
 FS U.S. Imprints not USDA, Experiment or Extension  
 LA English
- AB A column chromatographic cleanup method to remove aliphatic and aromatic solvent components and different **surfactants** present in formulated **neem** was developed. A glass column containing silica gel (6-120 British Standard Sieve) and 250 mL hexane-acetone (6 + 4) was used. Impurities interfering in the region of the **azadirachtin-A** peak were removed by fractional elution. Recovery of **azadirachtin-A** was greater than 81%.
- CC H000 Pesticides, General  
 CT **azadirachtin**; determination; liquid chromatography; **neem** extracts; quantitative analysis

RN 11141-17-6 (AZADIRACHTIN)  
 11141-17-6 (AZADIRACHTIN A)  
 63231-67-4 (SILICA GEL)

L106 ANSWER 5 OF 6 AGRICOLA

AN 92:92359 AGRICOLA

DN IND92054632

TI Efficacy of different vegetable oils as grain protectants against pulse beetle, *Callosobruchus chinensis* L. in increasing storability of pigeonpea.

AU Khaire, V.M.; Kachare, B.V.; Mote, U.N.

CS Mahatma Phule Agricultural University, Rahuri, Maharashtra, India

AV DNAL (421 J829)

SO Journal of stored products research, July 1992. Vol. 28, No. 3. p. 153-156

Publisher: Exeter : Pergamon Press.

CODEN: JSTPAR; ISSN: 0022-474X

NTE Includes references.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

AB Studies were carried out on the efficacy of ten vegetable oils viz., sunflower, castor, mustard, safflower, palm, groundnut, **sesame**, **neem**, karanj, and maize each applied at rates of 5, 7.5, and 10 mL/kg of grain (0.5, 0.75 and 1% v/w concentrations) as grain protectants of pigeonpea against pulse beetle (*Callosobruchus chinensis* L.). Effects on progeny emergence, loss in grain weight, and germination up to 100 days after treatment were measured. Adult emergence was completely prevented by karanj oil at 0.75 and 1% and **neem** oil at all levels up to 100 days. No emergence of adults occurred up to 66 days with castor oil at the 0.75 and 1% levels. Minimum grain loss was noted with castor, mustard, and groundnut oils at the 1% level up to 100 days after treatment. There was no adverse effect of the various oils on seed germination. **Neem**, palm and karanj oils are cheaper when compared with other oils.

CC F851 Protection of Stored Plant Products, Insects and Other Arthropods;

Q115 Food Storage, Horticultural Crop Products

CT *callosobruchus chinensis*; insect control; pigeon peas; plant oils; seed germination; storage losses

RN 8001-79-4 (CASTOR OIL)

8002-65-1 (NEEM OIL)

68956-68-3 (VEGETABLE OILS)

L106 ANSWER 6 OF 6 AGRICOLA

AN 79:66364 AGRICOLA

DN IND79055639

TI Use of **neem** (*Azadirachta indica* A. Juss.) seed as a feeding inhibitor against *Antigastra catalaunalis* Dupon. (Lepidoptera: Pyralidae) a **sesame** (*Sesamum indicum* L.) pest in Nigeria.

AU Chadha, S.S.

AV DNAL (24 EA74)

SO East African agricultural and forestry journal, Jan 1977 (pub. 1979) Vol. 42, No. 3. p. 257-262 ill

Publisher: Nairobi, East African Agriculture and Forestry Research Organization

ISSN: 0012-8325

NTE 11 ref.

DT Article

LA English

CC 4535 Insect Pests and Control, Field Crops (1972-79)

GT Nigeria

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(FILE 'HOME' ENTERED AT 18:06:56 ON 07 AUG 2001)  
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FILE 'HCAPLUS' ENTERED AT 18:07:06 ON 07 AUG 2001

L1 710 S AZADIRACHTIN?  
L2 116 S AZADIRACHTIN? A  
L3 17 S AZADIRACHTIN? B  
L4 911 S SORBITAN (L) TRIOLEATE  
L5 283 S L4 (L) (PEG OR POLYOXYETHYLENE OR POLYETHYLENEOXIDE OR POLYOX  
L6 77 S L4 (L) (POLYETHYLENEGLYCOL OR POLYETHYLENE GLYCOL OR POLY ETH

FILE 'REGISTRY' ENTERED AT 18:09:58 ON 07 AUG 2001

L7 2 S 11141-17-6 OR 95507-03-2  
E AZADIRACHTIN/CN  
L8 12 S E3,E4,E6-E16  
L9 12 S L7,L8  
L10 70 S (16458.1.3 AND 36597.1.3)/RID  
L11 64 S L10 NOT L9  
SEL RN L7  
L12 16 S E1-E2/CRN  
L13 18 S L7,L12  
L14 58 S L9,L11 NOT L13  
L15 1 S 9005-70-3

FILE 'HCAPLUS' ENTERED AT 18:13:51 ON 07 AUG 2001

L16 680 S L15  
L17 448 S TWEEN 85 OR EMSORB OR POLYSORBATE 85  
L18 1007 S L5,L6,L16,L17  
L19 753 S L1-L3,L13  
L20 80 S L14  
L21 1 S L18 AND L19,L20  
E VEGETABLE OIL/CT  
E E10+ALL  
L22 1508 S E1  
L23 3436 S E2  
L24 19368 S VEGETABLE (L) OIL  
L25 3610 S SESAME (L) OIL  
L26 583 S SESAME (L) OIL (L) SEED  
L27 7 S L19,L20 AND L22-L26  
L28 0 S L27 AND (SURFACTANT OR SURFACE ACTIVE)  
L29 1 S L27 AND EPOXIDE  
L30 8 S L21,L27,L29  
E DAMARLA S/AU  
L31 1 S E4  
E SRIDHAR S/AU  
L32 203 S E3,E4,E11,E12  
E RAMAN K/AU  
L33 204 S E3-E16  
E GOPINATHAN M/AU  
L34 6 S E3,E5,E8  
E MAMBULLY /AU  
E CHANDRASEKARAN/AU  
L35 6 S E26,E29  
L36 98 S E49  
E KRISHNASAMI/AU  
E SRINIVASA/AU  
L37 6 S E3  
L38 7 S E56  
E SREENIVASA/AU  
L39 4 S E21  
E RAO/AU  
L40 1 S E3  
E RAO D/AU  
L41 48 S E3  
L42 53 S E114  
L43 2 S E132  
L44 13 S E134  
E RAO DAMARLA/AU  
E RAO S/AU

L45 102 S E3  
L46 3 S E30  
E RAO SREEN/AU  
L47 7 S E4-E7  
L48 1 S L19,L20 AND L31-L47  
L49 1 S ?AZADIRACH? AND L31-L47  
L50 9 S L48,L49,L30

FILE 'HCAPLUS' ENTERED AT 18:25:43 ON 07 AUG 2001  
SEL HIT RN L50

FILE 'REGISTRY' ENTERED AT 18:26:03 ON 07 AUG 2001  
L51 14 S E1-E14

FILE 'HCAPLUS' ENTERED AT 18:27:29 ON 07 AUG 2001  
L52 0 S L18 AND NEEM  
L53 42 S L18 AND L22-L26  
E NEEM/CW  
L54 54 S E3  
E NEEM/CT  
L55 54 S E5  
E E5+ALL  
L56 152 S E2  
L57 1162 S MARGOS?  
L58 1 S L18 AND L54-L57  
L59 1 S L58 AND L19,L20  
E NEEM OIL/CT  
E NEEM OIL/CT  
E E3+ALL

FILE 'USPATFULL' ENTERED AT 18:30:44 ON 07 AUG 2001  
L60 234 S L19,L20  
L61 254 S ?AZADIRACH?  
L62 259 S L60,L61  
L63 3238 S L18  
L64 2 S L62 AND L63  
L65 70 S L62 AND (NEEM OR MARGOS?)  
L66 13275 S SESAME (L) OIL  
L67 0 S L64 AND L66  
L68 0 S L64 AND L65

FILE 'USPATFULL' ENTERED AT 18:33:39 ON 07 AUG 2001

FILE 'WPIX' ENTERED AT 18:33:53 ON 07 AUG 2001  
L69 143 S L1-L3,L61  
E AZADIRACH/DCN  
E E4+ALL  
L70 152 S E2 OR L69  
L71 300 S L4-L6,L17  
E POLYSORBATE/DCN  
E SORBITAN/DCN  
E E12+ALL  
L72 80 S E2  
L73 152 S L69,L70  
L74 0 S L71,L72 AND L73  
L75 2 S L73 AND SESAME  
L76 160 S MARGOS? OR L73  
L77 2 S L76 AND SESAME  
L78 2 S L75,L77  
L79 0 S L78 AND L71,L72  
L80 0 S L78 AND SURFACTANT  
L81 0 S NEEM AND L71,L72

FILE 'WPIX' ENTERED AT 18:39:13 ON 07 AUG 2001

FILE 'HCAPLUS' ENTERED AT 18:39:30 ON 07 AUG 2001

L82            923 S E4  
              E MARGOS/CW  
              E MARGOS/CT  
              E E4+ALL  
L83           653 S E1  
              E E2+ALL  
L84           270 S E8+NT  
L85           1109 S MARGOSA  
L86           1109 S L82-L85  
L87           1 S L86 AND L18  
L88           0 S L87 NOT L50,L59

FILE 'NAPRALERT' ENTERED AT 18:41:06 ON 07 AUG 2001

L89           147 S L1,L2,L3,L13,L14  
              E MARGOS  
L90           23 S MARGOS?  
              E NEEM  
L91           189 S E3  
L92           312 S L89-L91  
L93           1 S L92 (L) SESAME  
L94           651 S L92 OR AZADIRACH?  
L95           1 S L94 (L) SESAME  
L96           0 S L94 (L) VEGETABLE (L) OIL  
L97           1 S L93,L95

FILE 'NAPRALERT' ENTERED AT 18:43:46 ON 07 AUG 2001

FILE 'AGRICOLA' ENTERED AT 18:43:58 ON 07 AUG 2001

L98           1135 S L94  
              E AZADIRACH  
L99           896 S E4-E12  
              E NEEM  
L100          735 S E3  
              E MARGOS  
L101          45 S E3-E8  
L102          1137 S L98-L101  
L103          0 S L18 AND L102  
L104          3 S SURFACTANT AND L102  
L105          3 S L102 AND SESAME  
L106          6 S L104,L105

FILE 'AGRICOLA' ENTERED AT 18:46:10 ON 07 AUG 2001